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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION I

ENVIRONMENTAL SERVICES DIVISION

60 WESTVIEW STREET, LEXINGTON, MASSACHUSETTS 02173-3185

August 28, 1991

Richard Thurston, Contracting Officer
U.S. Environmental Protection Agency
Procurement Section WA 63
401 M Street S.W. (PM-214-F)
Washington, DC 20460

Dear Mr. Thurston:

Enclosed is the Action Memorandum for the Jard Company Site,
Bowen Road, Bennington, Vermont. If you have any questions,
please contact me at (617) 860-4625.

Sincerely,

Dean Tagliaferro
Dean Tagliaferro
On-Scene Coordinator
Region I

Enclosure

cc: Pat Hawkins, ERD
Roger Duhamel, OIG
Paul McKechnie, OIG
Rudy Brown, RGR
Thomas Skinner, RPA
Andy Raubvogel, ORC
David McIntyre, ESD
Lee MacMichael, ESD
Stanley Corneille, VT DEC (w/o Enforcement Strategy)
Site File



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CONTAINS ENFORCEMENT-SENSITIVE INFORMATION

MEMORANDUM

DATE: August 14, 1991

SUBJ: Request for a Removal Action at the Jard Company Site,
Bennington, Bennington County, Vermont--ACTION MEMORANDUM

FROM: Dean Tagliaferro, On-Scene Coordinator
Emergency Planning and Response Branch

Dean Tagliaferro

TO: Julie Belaga
Regional Administrator

THRU: Edward J. Conley, Director *[Signature]*
Environmental Services Division

I. PURPOSE

The purpose of this Action Memorandum is to request and document approval of the proposed removal action described herein for the Jard Company Site (the "Site"), Bowen Road, Bennington, Bennington County, Vermont.

II. SITE CONDITIONS AND BACKGROUND

CERCLIS ID#: VTD048141741
SITE ID# : L2
CATEGORY : Time-Critical

A. Site Description

1. Background

The Jard Company (Jard) manufactured small capacitors, small non-fluid transformers and small motors from 1969 to 1989. The oil-filled capacitors were wound, assembled, impregnated with oil, degreased, tested and painted. The transformers were wound, assembled, varnished and tested.¹ Originally,

¹Draft Environmental Assessment of the Jard Property in Bennington, Vermont, prepared by Wehran Engineering, November 1989

the capacitors were filled with polychlorinated biphenyl (PCB) oil. At some time in the 1970s, Jard replaced the PCB oil with bis (2-ethylhexyl) phthalate (BEHP)² oil.

In 1989, Jard ceased its manufacturing operations and filed for Chapter 7 bankruptcy (no reorganization). The court-appointed trustee for Jard, Laurence H. Levy of Laurence H. Levy, Inc., contracted Wehran Engineering to perform a Phase I Site Assessment. The purpose of this assessment was to conduct an environmental audit prior to a possible sale of the property. The report, completed in November 1989, states that approximately fifty-four 55-gallon drums and twenty-five 5-gallon pails containing paints, solvents, thinners, degreasers, waste trichloroethylene, and other compounds remain outside in a fenced-in storage area. The report also states that approximately 21 cubic yards of rejected capacitors filled with BEHP oil remain at the Site.

The Wehran Phase I Report identified the presence of a tank, 2 dry wells, a concrete vault and catch basins. A twelve by twenty-four inch catch basin is located inside a warehouse, and 2 dry wells, a concrete vault, two four-inch stand pipes (an indication of an underground storage tank), and an aboveground 2,000 gallon tank are located outside the warehouse. According to conversations with a former employee for Jard, the two stand pipes mark the location of a cement underground tank that was used to store process water as part of a recirculation cooling system. The process water may have been contaminated with PCBs.

The ex-employee also stated that the aboveground 2,000 gallon storage tank contains BEHP oil used in the production of the capacitors. The oil may be contaminated with PCBs. One of the dry wells was reportedly used for the subsurface disposal of paint wash water; the other dry well received the overflow from the underground tank.

The analytical results from a sediment sample collected in one of the dry wells had concentrations of 11,500 parts per million (ppm) zinc, 280 ppm PCBs, 810 ppm BEHP, 12 ppm toluene and 1.3 ppm ethylbenzene. A sample from the second dry well had concentrations of 191,000 ppm zinc, 98 ppm PCBs and 1,400 ppm BEHP. A sediment sample collected from the catch basin located inside the warehouse had concentrations of 753 ppm zinc, 4,900 ppm PCBs, 36,000 ppm BEHP, 2 ppm trichlorethylene and 1 ppm 1,1,1-trichloroethane.

²BEHP is also referred to as di-octyl phthalate or DOP

Nine soil samples were also collected from the Site. Table 1 presents the maximum concentrations of compounds detected in the soil samples.

Table 1

<u>Compound</u>	<u>Concentration (ppm)</u>
Zinc	466,000 ³
BEHP	30,000
PCBs	820
<u>Trichloroethylene</u>	<u>4</u>

Mr. Levy also contracted Wehran to perform a Phase II Site Assessment. The report for this assessment was submitted in February 1991. The assessment consisted of the excavation of six test pits and the installation of five monitoring wells. One of the six test pits had soil contamination significantly higher than the other five. The sample from this test pit contained 3,000 ppm BEHP, 2,600 ppm zinc, 77 ppm PCBs, and 3 ppm toluene.

Similarly, one monitoring well (adjacent to the above-mentioned test pit) had significantly higher concentrations of contaminants than the other four. The well sample contained an oil layer as well as a water layer. The water layer contained 110,000 ppm BEHP, 390 ppm PCBs, and 3 ppm zinc, and several VOCs ranging from 3 ppm to 24 ppm. The report also stated the depth to groundwater was between 2.9 and 8.0 feet.

In July of 1991, the Vermont Department of Environmental Conservation (DEC) completed a Preliminary Assessment (PA) for submittal to EPA's pre-remedial personnel. The PA states that an additional 138 drums were observed inside the building and that the aboveground tank "appeared to be full of liquid". The PA also states that Jard was classified as a generator of hazardous waste.

2. Removal site evaluation

On March 11, 1991, Stan Corneille of the Vermont DEC requested EPA's Emergency Planning and Response Branch perform a Removal Site Evaluation to determine if the Site met the criteria for a removal action. On March 19, 1991, EPA's Site Investigator Mary Ellen Stanton and personnel

³The natural level of zinc in soil in New England ranges from <5 ppm to 300 ppm, with an average concentration of 45 ppm. Reference: Conner and Shacklette (1975); Shacklette and Boesngen (1984).

from the Technical Assistance Team (TAT) performed a Removal Site Investigation.

This investigation confirmed the presence of approximately fifty-five to sixty non-empty 55-gallon drums and twenty-five non-empty 5-gallon pails. The labels on the drums and 5-gallon containers indicated contents similar to those identified in the Wehran Phase I Report. The tank and dry wells located outside the building were also observed.

Two drum samples, six soil samples, and one water sample were collected during the Site Investigation. Eighty-two percent toluene was detected in one drum sample and the second sample contained 90% unknown hydrocarbons. The water sample, collected from one of the stand pipes, had low levels of volatile organic compounds (VOCs). The highest concentration of compounds detected in the six soil samples are presented in Table 2.

Table 2

<u>Compound</u>	<u>Concentration (ppm)</u>
Zinc	400,000
BEHP	1,000
PCBs	44
Trichlorofluoromethane	2

On May 28, 1991, after reviewing all the analytical data, EPA Site Investigator Stanton completed the Removal Site Evaluation by writing a memorandum to the file which concluded, "The Removal Site Evaluation has led to the determination that a Removal Action is appropriate at this time." David McIntyre, EPA Response and Prevention Section Chief, concurred on this memorandum.

On July 23, 1991, EPA On-Scene Coordinator (OSC) Dean Tagliaferro conducted a Site visit. The number of drums inside the building was estimated to be 174. A majority of the drums were labeled with either corrosive labels, PCB labels or ORM-E hazardous waste stickers. Also identified inside the building were six tanks approximately 2,000 to 10,000 gallons in size. The ex-employee for Jard stated that the tanks now contain BEHP oil. Previously, the tanks contained PCB oil and the BEHP currently in the tanks may be contaminated with PCBs.

3. Physical location and Site characteristics

The Site consists of approximately 11.26 acres and is located near the center of Bennington, Vermont. The property is identified as lot #77 on tax map 45 and lot #73 on tax map 44. The Site is bounded on the north by Bowen

Road (across from which is the UST Corporation); on the east by the State of Vermont Agency of Transportation Garage and by a wooded 22.9 acre parcel of land also owned by Jard; on the south by the Roaring Branch of the Walloomsac River (across from which is Mt. Anthony High School); and on the west by Little League baseball fields and an undeveloped lot. The area around the Site is recreational, industrial and residential.

A 66,705 square foot building is located on the property. There is a cleared area adjacent to the building that was used for parking. The building and cleared area of the Site encompass approximately 4 acres. The remainder of the Site is wooded. The property is currently abandoned, however, the court-appointed trustee for the property has agreed to maintain water, heat, and electrical service. The Vermont DEC arranged to have a four-foot high wire mesh fence installed to limit access to the cleared area of the Site. During the Site visit, the OSC noted that the fence was cut in one area and it was evident that in several areas people had climbed over the fence.

4. Release or threatened release into the environment of a hazardous substance, or pollutant or contaminant

Approximately 230 55-gallon drums, twenty-five 5-gallon pails, several other small containers, and seven aboveground storage tanks are present at the Site. Labels, hazardous waste stickers, and analytical results indicate the contents of the containers include the following:

methyl isoamyl ketone	1,1,1-trichloroethane
toluene	methanol
trichloroethylene	enamel paints
polychlorinated biphenyls	hydrochloric acid
sodium hydroxide	BEHP
methylene chloride	varnishes
zinc	

All the compounds, with the exception of the enamel paints and the varnishes, are hazardous substances as defined by Section 101(14) of CERCLA. Further analysis of the varnishes and paints may indicate that they are also hazardous substances.

The hazardous substances in these containers and/or tanks could be released into the environment by a fire/explosion or by the containers and/or tanks leaking material onto the ground.

There are also approximately 21 cubic yards of BEHP oil-filled capacitors at the Site. As stated above, BEHP is a

hazardous substance as defined by Section 101(14) of CERCLA. The oil in the capacitors could be released into the environment through a fire/explosion or through leakage.

Furthermore, the soil and groundwater on-site are contaminated with zinc, PCBs, BEHP, and low levels of VOCs, all of which are hazardous substances as defined by Section 101(14) of CERCLA. The contaminated soil and groundwater are evidence that hazardous substances have already been released into the environment.

5. NPL Status

The Site is currently not listed on the National Priorities List (NPL). The Vermont DEC has completed a Preliminary Assessment and has recommended to the EPA that a high priority for a Screening Site Inspection (SSI) be assigned. The Vermont DEC has requested the EPA conduct the SSI.

The Site has not been evaluated by the Agency for Toxic Substances and Disease Registry (ATSDR), however, the OSC will request a health assessment be issued once sufficient surface soil data has been collected.

B. State Actions and Roles

The Vermont DEC paid for the construction of a four-foot high wire mesh fence around the cleared area of the Site and posted warning signs on the fence. The Vermont DEC stated they do not have sufficient financial resources to remove the hazardous substances from the Site and have requested assistance from EPA's Emergency Planning and Response Branch.

III. THREATS TO PUBLIC HEALTH OR WELFARE OR THE ENVIRONMENT, AND STATUTORY AND REGULATORY AUTHORITIES

A. Threats to Public Health or Welfare

There are 230 drums, twenty-five 5-gallon pails, and several other bulk containers present at the Site. Labels on the drums indicate that some of the contents, such as methyl isoamyl ketone, toluene, and methanol, are flammable (flash point <140°F). These drums therefore represent a threat of fire and/or explosion. If a fire or explosion were to occur, fire-fighters and area residents would be exposed to hazardous vapors.

Furthermore, damage to the fence indicates that access has been obtained. Therefore, if a bulk container or storage tank leak were to leak because of deterioration or

vandalism, there would be a threat of direct contact to the hazardous substances. Some of the contents are strong acids (hydrochloric acid) and strong bases (sodium hydroxide), and others have been classified by EPA as probable human carcinogens (PCBs, trichloroethylene, BEHP, and methylene chloride).

The contaminated soil at the Site may also represent a direct contact threat. Surface soil samples have identified the presence of high levels of zinc (466,000 ppm), BEHP (1,000 ppm), and PCBs (820 ppm). Both PCBs and BEHP are classified by EPA as probable human carcinogens.

B. Threats to the Environment

As stated above, the bulk containers at the Site represent a fire and/or explosion threat. A fire or explosion at the Site would result in a threat to the environment as well as a health threat. During a fire, the contents of the containers would be released to the environment. Any material not consumed in the fire would enter onto the ground, and eventually, into the groundwater. Furthermore, run-off water (generated during fire-fighting activities) would most likely be contaminated and would either contaminate the soil or discharge into a storm drain or the Roaring Branch of the Walloomsac River.

A second threat to the environment is from the possible leakage of hazardous substances from the bulk containers and storage tanks. Leaks may be caused by deterioration or vandalism of the containers or storage tanks. Since the depth to groundwater is relatively shallow (between 2 and 8 feet), if any material leaked, it would not only contaminate the soil, but would most likely contaminate the groundwater as well. Furthermore, the Roaring Branch of the Walloomsac River is adjacent to the Site and may also be impacted.

IV. ENDANGERMENT DETERMINATION

Actual or threatened releases of hazardous substances from this Site, if not addressed by implementing the response actions selected in this Action Memorandum, may present an imminent and substantial endangerment to public health, or welfare, or to the environment.

V. PROPOSED ACTIONS AND ESTIMATED COSTS

A. Proposed Actions

1. Proposed action description

Bulk containers. All drums, pails, and other containers will be staged, sampled and inventoried. After sample results are received, waste profiles will be completed for each waste stream. The containers will then be transported to off-site disposal facilities which are in compliance with the CERCLA Off-Site Policy.

Tanks and vaults. All tanks will be sampled, waste profiles completed, and the material transported to an off-site disposal facility. The sediment in the dry wells may also be removed for disposal. Proper decontamination or cleaning of the storage tanks may also be performed.

Capacitors. The capacitors are believed to contain BEHP oil, not PCB oil, and will be disposed of off-site. The off-site disposal options for the capacitors will be investigated by the OSC. Preliminary information indicates that disposal by landfill or incineration is possible.

Soil. Data obtained from previous Site assessments and investigations has shown evidence of soil contamination. The OSC will coordinate with ATSDR to determine if additional sampling is required for a health assessment. When there is sufficient information, the OSC will request ATSDR evaluate the soil contamination and determine if a health threat exists. Furthermore, subsurface soil sampling will be performed adjacent to the underground tank and dry wells.

If a health threat exists, or if significant subsurface soil contamination is present, further sampling may be necessary to determine the extent and volume of soil contamination. Based on this information, the OSC will evaluate options to mitigate the health and environmental threat posed by the contaminated soil. These options include off-site disposal in a landfill, incinerator or treatment facility; on-site treatment; or the installation of a cap over the soil. Additional options may also be feasible.

2. Contribution to remedial performance

The Site is currently not on the NPL. However, it may be in the future. The removal action consists of removing the contents from bulk storage containers (i.e., drums, tanks, dry wells, and other containers) and transporting the material to off-site disposal facilities. The removal

action may also include the excavation and treatment/disposal of highly contaminated soil. Both of these actions are consistent with any conceivable remedial action.

3. Description of alternative technologies

Incineration and wastewater treatment are the preferred forms of disposal for the hazardous substances present in the bulk containers. Fuel blending or recycling of some of the material may also be possible. If treatment or disposal of the contaminated soil is required, the OSC will review potential alternative technologies in order to determine the most cost-effective and environmentally beneficial method.

4. Applicable or Relevant and Appropriate Requirements (ARARs)

The OSC will determine which federal ARARs are practicable. The Vermont DEC will be responsible for notifying the OSC of potential State ARARs.

Federal ARARs identified at this time are CERCLA/SARA, the CERCLA Off-Site Policy, Department of Transportation regulations regarding the transportation of hazardous substances, PCB regulations under TSCA, RCRA regulations regarding the identification and labeling of drums containing hazardous substances, and Occupational Safety and Health Administration (OSHA) regulation 29 CFR 1910.120, "Hazardous Waste Operations and Emergency Response". Additional ARARs may be identified as the removal action progresses according to the selected cleanup methods and disposal/treatment options.

5. Project Schedule

Bulk containers. It is estimated that it will take three weeks to stage, sample, and inventory all the bulk containers and tanks. Another two to five months will be required for chemical analyses and to arrange for the proper disposal of this material.

Contaminated soil and subsurface contamination. The extent of the surface and subsurface soil contamination has not been clearly defined. Therefore, any estimate of a proposed schedule is based on limited information and has a large potential for error. A rough estimate is that it will take two to three months to sample and assess the soil contamination and an additional nine to twelve months to mitigate, if necessary, the health or environmental threat.

B. Estimated Costs

Extramural Costs

Regional Allowance Costs

Extramural Cleanup Contractor	\$1,100,000
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Other Extramural Costs

Technical Assistance Team	<u>\$75,000</u>
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Subtotal Extramural Costs	\$1,175,000
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20% Extramural Cost Contingency	<u>\$235,000</u>
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Total Extramural Cost	\$1,410,000
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Intramural Costs

EPA Regional Personnel	<u>\$90,000</u>
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TOTAL REMOVAL PROJECT CEILING	\$1,500,000
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VI. EXPECTED CHANGE IN THE SITUATION SHOULD ACTION BE DELAYED OR NOT TAKEN

Delayed action will result in an increased risk to the public health and the environment. The situation is unstable. Any delay will result in an increased risk of a fire/explosion, which would spread hazardous vapors throughout the area. Also, through either natural deterioration or from vandalism, the drums would either leak or rupture, resulting in significant soil contamination. Eventually, the contaminants could migrate into the groundwater.

VII. OUTSTANDING POLICY ISSUES

None.

VIII. ENFORCEMENT

See attached.

IX. RECOMMENDATION

This decision document represents the selected removal action for the Jard Company Site. It was developed in accordance with CERCLA, as amended, and is consistent with the National Contingency Plan (NCP). This decision is based on the documents contained in the Administrative Record for the Site.

Conditions at the Jard Company Site meet NCP Section 300.415(b)(2) criteria for a removal action in that there are:

"Actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances or pollutants or contaminants" [300.415(b)(2)(i)];

"Hazardous substances or pollutants or contaminants in drums, barrels, tanks, or other bulk storage containers, that may pose a threat of release" [300.415(b)(2)(iii)];

"High levels of hazardous substances or pollutants or contaminants in soils largely at or near the surface, that may migrate" [300.415(b)(2)(iv)]; and

"Threat of fire or explosion" [300.415(b)(2)(vi)].

Therefore, I recommend your approval of this proposed removal action. The estimated total project costs are \$1,500,000, of which approximately \$1,100,000 will come from the Regional removal allowance.

APPROVAL: _____ DATE: _____

DISAPPROVAL: _____ DATE: _____